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SQUIRE, SANDERS & DEMPSEY L.L.P.
14TH FLOOR
8000 TOWERS CRESCENT
TYSONS CORNER, VA 22182

EXAMINER	
MILLER, BRANDON J	

ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/829,473	LAPPETELAINEN ET AL.	
	Examiner	Art Unit	
	Brandon J. Miller	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 August 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-29* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-29* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *22 April 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Request for Reconsideration

I. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

II. Claim 13 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 13 recites a sub-terminal in line 1 then later recites a sub-terminal in line 3. This language suggests that there are two sub-terminals in the wireless telecommunication system; however the language is unclear because it does not adequately distinguish one from the other. The limitations render the claim indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The following art rejection is based upon the best possible interpretation of the claim language given the rejection under 35 U.S.C. 112, second paragraph.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

III. Claims 1-17, 23, 25, 27, and 29 are rejected under 35 U.S.C. 102(e) as being anticipated by Ratert et al. (US 2004/0142684 A1).

Regarding claim 1 Ratert teaches connecting a subscriber terminal of a wireless telecommunication system to an infrastructure of the wireless telecommunications system over a wireless interface, the subscriber terminal holding a subscriber identity in the wireless telecommunications system (see paragraphs [0016] & [0023], radiotelephone 100 reads on subscriber terminal; and communication between radiotelephone 100 and telecommunications network reads on connecting subscriber terminal to infrastructure because for communication to occur a connection must first be made). Ratert teaches connecting the subscriber terminal to at least one sub-terminal over a proximity wireless interface, the at least one sub-terminal using the subscriber identity of the subscriber terminal (see paragraphs [0020] & [0025] and FIGs. 2 & 3). Ratert teaches requesting a radio link from the subscriber terminal, the radio link being directed from the infrastructure to the at least one sub-terminal (see paragraphs [0020] & [0021] and FIGs. 2 & 3). Ratert teaches generating signaling parameters for controlling the radio link; and

communicating at least one of the signaling parameters between the sub-terminal and the infrastructure via the subscriber terminal (see paragraphs [0020] & [0021] and FIGs. 2 & 3).

Regarding claim 2 Ratert teaches generating at least some of the signaling parameters in the sub-terminal (see paragraph [0023] and FIG. 3).

Regarding claim 4 Ratert teaches communicating at least some the signaling parameters between the sub-terminal and the infrastructure over a wireless interface between the infrastructure and the sub-terminal (see paragraph [0021] and FIG. 2).

Regarding claim 5 Ratert teaches generating, in the infrastructure, proximity signaling parameters for controlling the proximity wireless interface; communicating the proximity signaling parameters between the subscriber terminal and the infrastructure; communicating at least some of the proximity signaling parameters between the subscriber terminal and the sub-terminal; and configuring the proximity wireless interface according to the proximity signaling parameters (see paragraph [0023] and FIG. 3).

Regarding claim 6 Ratert teaches a terminal system comprising a subscriber terminal and at least one sub-terminal, wherein the subscriber terminal comprises a connecting unit configured to connect the subscriber terminal to a infrastructure of a, wireless telecommunications system and a subscriber identity unit configured to hold a subscriber identity of the subscriber terminal in the wireless telecommunications system (see paragraphs [0016], radiotelephone 100 reads on subscriber terminal and FIG. 2). Ratert teaches wherein the at least one sub-terminal uses the subscriber identity of the subscriber terminal and includes a receiving unit configured to provide a radio link directed from the infrastructure to the at least one sub-terminal, the radio link being controlled on the basis of signaling parameters (see paragraphs [0020] & [0021] and FIGs. 2 &

3). Ratert teaches wherein the subscriber terminal comprises a requesting unit connected to the connecting unit, configured to request the radio link and wherein the terminal system comprises a signaling unit connected to the connecting unit, configured to communicate at least one of the signaling parameters between the subscriber terminal and the infrastructure (see paragraph [0023]). Ratert teaches wherein the terminal system comprises a proximity signaling unit connected to the signaling unit, configured to communicate the at least one of the signaling parameters between the subscriber terminal and the at least one sub-terminal over a proximity wireless interface (see paragraphs [0020] & [0025] and FIGs. 2 & 3).

Regarding claim 7 Ratert teaches a device as recited in claim 2 and is rejected given the same reasoning as above.

Regarding claim 8 Ratert teaches a device as recited in claim 3 and is rejected given the same reasoning as above.

Regarding claim 9 Ratert teaches configuring the receiving unit according to at least some of the signaling parameters (see paragraph [0020]).

Regarding claim 10 Ratert teaches communicating proximity signaling parameters between the subscriber terminal and the infrastructure, the proximity signaling parameters being generated in the infrastructure (see paragraph [0023]). Ratert teaches configuring the proximity signaling unit according to at least some of the proximity signaling parameters (see paragraph [0023] and FIG. 3).

Regarding claim 11 Ratert teaches a subscriber terminal of a wireless telecommunications system, the subscriber terminal comprising a connecting unit configured to connect the subscriber terminal to an infrastructure of the wireless telecommunications system

(see paragraphs [0016], radiotelephone 100 reads on subscriber terminal and FIG. 2). Ratert teaches a subscriber identity unit configured to hold a subscriber identity of the subscriber terminal in the wireless telecommunications system (see paragraph [0016]). Ratert teaches a requesting unit connected to the connecting unit, configured to request a radio link directed from the infrastructure to at least one sub-terminal, the at least one sub-terminal using the subscriber identity of the subscriber terminal, the radio link being controlled on the basis of signaling parameters (see paragraphs [0020] & [0021] and FIGs. 2 & 3). Ratert teaches a proximity signaling unit configured to communicate at least one of the signaling parameters with the at least one sub-terminal over a proximity wireless interface; and a signaling unit connected to the connecting unit and the proximity signaling unit, configured to communicate the at least one of the signaling parameters between the subscriber terminal and the infrastructure (see paragraphs [0020] & [0025] and FIGs. 2 & 3).

Regarding claim 12 Ratert teaches a device as recited in claim 10 and is rejected given the same reasoning as above.

Regarding claim 13 Ratert teaches a sub-terminal comprising a receiving unit configured to provide a radio link directed from an infrastructure of the wireless telecommunication system, to the sub-terminal of the wireless telecommunication system (see paragraphs [0020] - [0021]). Ratert teaches the sub-terminal being connected to the infrastructure and holding a subscriber identity in the wireless telecommunications system, the sub-terminal using the subscriber identity of a subscriber terminal and, the radio link being controlled on the basis of signaling parameters communicated between the subscriber terminal and the infrastructure (see paragrapha [0020] – [0021] and FIGs 2 & 3). Ratert teaches the radio link being requested by the subscriber terminal;

and a proximity signaling unit configured to communicate at least some of the signaling parameters between the subscriber terminal and the sub-terminal over a proximity wireless interface (see paragraphs [0020] & [0025] and FIGs. 2 & 3).

Regarding claim 14 Ratert teaches a device as recited in claim 2 and is rejected given the same reasoning as above.

Regarding claim 15 Ratert teaches a device as recited in claim 3 and is rejected given the same reasoning as above.

Regarding claim 16 Ratert teaches a device as recited in claim 9 and is rejected given the same reasoning as above.

Regarding claim 17 Ratert teaches the sub-terminal configuring the proximity signaling according to at least some of the proximity signaling parameters received from the subscriber terminal (see paragraph [0020]).

Regarding claim 23 Ratert teaches elements selected from a group comprising: admission control, and allocation of resources (see paragraph [0023]).

Regarding claim 25 Ratert teaches a device as recited in claim 23 and is rejected given the same reasoning as above.

Regarding claim 27 Ratert teaches a device as recited in claim 23 and is rejected given the same reasoning as above.

Regarding claim 29 Ratert teaches a device as recited in claim 23 and is rejected given the same reasoning as above.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

IV. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1,148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

V. Claims 18-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ratert et al. (US 2004/0142684 A1) in view of Cao et al. (US 6,975,858 B2).

Regarding claim 18 Ratert teaches controlling access of at least one sub-terminal to an infrastructure of the wireless telecommunications system on the basis of an access request from a subscriber terminal of the wireless telecommunications system (see paragraph [0023]). Ratert teaches the subscriber terminal being connected to the infrastructure and the subscriber terminal holding the subscriber identity in the wireless telecommunications system see paragraphs [0016] & [0023], radiotelephone 100 reads on subscriber terminal; and communication between radiotelephone 100 and telecommunications network reads on connecting subscriber terminal to infrastructure because for communication to occur a connection must first be made). Ratert teaches the at least one sub-terminal using the subscriber identity of the subscriber terminal; and controlling the radio link directed from the infrastructure to at least one sub-terminal, the radio link being controlled on the basis of signaling parameters (see paragraphs [0020] - [0021] and FIGs 2 & 3). Ratert teaches a signaling unit configured to communicate at least one of the signaling parameters between the infrastructure and the subscriber terminal, the at least one of the signaling parameters being communicated between the subscriber terminal and the at least one sub-terminal over a proximity wireless interface (see paragraphs [0020] & [0025] and FIGs. 2 & 3). Ratert does not specifically teach a radio resource control system for controlling resources in the wireless telecommunication system. Cao teaches a radio resource control system for controlling access of at least one terminal to an infrastructure of a wireless telecommunication system (see col. 3, lines 5-13). It would have been obvious to one of ordinary skill in the art at the time the device in Ratert was made to make the

telecommunications network 216 in Ratert adapt to include a radio resource control system as taught in Cao because radio control systems are commonly found in telecommunication networks such as the one in Ratert and are used to effectuate network access of the kind found in Ratert (see Ratert, paragraph [0023]).

Regarding claim 19 Ratert teaches controlling a radio link on the basis of signaling parameters generated in the sub-terminal (see paragraph [0023] and FIG. 3).

Regarding claim 20 Ratert teaches a device as recited in claim 3 and is rejected given the same reasoning as above.

Regarding claim 21 Ratert teaches controlling the wireless interface on the basis of signaling parameters and a second signaling unit for communicating at least some of the proximity signaling parameters with the subscriber terminal (see paragraph [0020] – [0021] and FIG. 2).

VI. Claims 22, 24, 26, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ratert et al. (US 2004/0142684 A1) in view deTorbal (US 2004/0058678 A1).

Regarding claim 22 Ratert teaches a device as recited in claim 1 except for generating a handover request to the sub-terminal in the subscriber terminal in order to perform simultaneous handovers of the subscriber terminal and the sub-terminal. deTorbal teaches generating a handover request in a subscriber terminal and performing simultaneous handovers of multiple subscriber terminals (see paragraph [0020]). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device in Ratert adapt to include generating a handover request to the sub-terminal in the subscriber terminal in order to perform

simultaneous handovers of the subscriber terminal and the sub-terminal because the subscriber terminals in Ratert can communicate the handover request to the sub-terminal using the communication link between the two and it would allow for more efficient handover of communication.

Regarding claim 24 Ratert and deTorbal teach a device as recited in claim 22 and is rejected given the same reasoning as above.

Regarding claim 26 Carlsson and deTorbal teach a device as recited in claim 22 and is rejected given the same reasoning as above.

Regarding claim 28 Carlsson and deTorbal teach a device as recited in claim 22 and is rejected given the same reasoning as above.

Response to Arguments

VII. Applicant's arguments with respect to claims 1-29 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

VIII. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Anderson Pub. No.: US 2003/0008613 A1 discloses an arrangement and a method in a telephony system technical field of the invention.

Pettersson Patent No.: US 6,615,057 B1 discloses a method and arrangement for communicating subscriber related data in a wireless communications system.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brandon J. Miller whose telephone number is 571-272-7869. The examiner can normally be reached on Mon.-Fri. 8:00 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Eng can be reached on 571-272-7495. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

February 05, 2008